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NEVER was such right-handed-two-fisted smokejoy as you puff out of a jimmy pipe packed with Prince Albert! That's because P. A. has the quality!

You can't fool your taste apparatus any more than you can get five aces out of a family deck! So, when you hit Prince Albert, coming and going, and get up half an hour earlier just to start stoking your pipe or rolling cigarettes, you know you've got the big prize on the end of your line!

Prince Albert's quality alone puts it in a class of its own, but when you figure that P. A. is made by our exclusive patented process that cuts out bite and parch—well—you feel like getting a flock of dictionaries to find enough words to express your happy days sentiments!

Toppy red bags, tidy red tins, handsome pound and half-pound tin humidor—and that classy, practical pound crystal glass humidor with sponge moistener top that keeps the tobacco in such perfect condition.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C.



TEST OF IGNITION SYSTEM IS IMPORTANT IN LOCATING GASOLINE ENGINE TROUBLE



Tractors Are Coming Into Use on Many Farms Which Emphasizes the Importance of Knowing How to Run a Gasoline Engine.

(Prepared by the United States Department of Agriculture.)

With all engines using spark plugs it is comparatively easy to ascertain whether the ignition system is working properly. Simply remove a plug and ascertain that the porcelain or other insulating material on the inside of the plug is not coated with carbon and that the points are properly spaced. One thirty-second of an inch is about the right space for most systems where a dry battery is used. This is about equal to the thickness of a worn dime. A wider gap will often make starting difficult, especially when the spark is rather weak or where a high tension magneto is used. In the latter case the best results will often be obtained when the gap is not more than one-fortieth or even one-fiftieth of an inch. Then re-attach the wire and lay the plug so that the metal base touches the engine casting, while the end of the wire and the metal tip of the plug are at least half an inch from any metal part connected with the engine and in such a position that the points are visible while cranking the engine. Then turn the engine over a few times (at least as many times as there are cylinders) and note whether a spark jumps across the space between the points. It is not sufficient, however, merely to ascertain if there is a spark—it must be hot enough to fire the compressed charge in the cylinder. It is, of course, difficult to tell by merely looking at it whether the spark is hot enough or not, but if it is a heavy blue, or a bluish-white, or a "fat" yellow one looking like a small flame, it is probably all right. If very thin and greenish or showing red, the chances are it is too weak to fire the charge. One may familiarize himself with the aspect of a good spark as follows:

Finding a Good Spark.

While the motor is in satisfactory running condition loosen the nut on the top of the plug while the engine is stopped so it will be easy to remove the wire from the plug after the engine is started. Then start the engine and, by taking hold of the wire where it is covered with insulation, move the end of the wire very slowly away from the center of the plug and watch the spark jump, closely observing its color and thickness.

It is also well to note the distance the spark will jump, yet not advisable to force it to jump too great a gap, nor should the end of the wire be allowed to rest in a position where the

spark cannot jump to the plug or the engine while the engine is running, as this tends to break down the insulation of the coil. In the case of high-tension magnetos there is no danger in this respect, as they are fitted with a safety spark gap which the spark will jump, if for any reason the circuit is broken elsewhere.

Knowledge of just how much of a spark one should obtain with each kind of ignition system is frequently of great value in locating trouble, and everyone who operates a gas engine should make the above-described tests while the engine is in good order. If one is not sufficiently familiar with the looks of a good spark to tell by mere observation whether it is hot enough, a rough test may be made as follows: Place a thin piece of dry cardboard, such as an ordinary visiting card, or three or four thicknesses of dry newspaper, between the points of the plug while it is lying on the engine in the position first mentioned, then crank the engine. A good spark will jump through these, leaving a tiny hole. A spark which will not do this is too weak to jump the spark gap in the cylinder under compression.

If the engine is equipped with a make-and-break ignition system, in which an igniter block is used instead of a spark plug, it can be ascertained easily whether the entire system, with the exception of the igniter block, is in good shape by disconnecting the wire from the igniter block and snapping it across the corner of the engine casting or the end of the other wire leading from the coil. But even though this gives a good spark it does not necessarily mean that the spark is given in the cylinder when the engine is turned over. It may be that the points of the electrodes inside the cylinder do not touch each other when they should or are not making a good contact, because carbon, oil, dirt, etc., have accumulated between these points. Therefore, if a good spark occurs when the wire is snapped across part of the engine, crank the engine until the movable electrode is released and allowed to fly back.

Contact Not Being Made.

If one is not sure just when the points of the electrode should be touching, the engine may be cranked very slowly for two full revolutions while the end of the wire is repeatedly snapped across its connection on the

electrode. If no spark can be obtained at any position of the electrode, it is evident that contact is not being made by the points inside the cylinder (this is in case the other wire is grounded directly to the engine). Sometimes the other wire is fastened to a piece of metal insulated from the engine, but which touches part of the engine for an instant when the spark should occur in the cylinder. In this case, if a spark can be obtained by bringing the ends of the two wires into contact it should be determined whether the insulated piece is making contact with the engine properly.

If no spark is obtained at the plug or igniter block when tested as directed, it will, of course, be necessary to look over the electrical system in order to ascertain what is wrong. The electrical systems of various engines differ considerably, and no definite instruction can be given for different makes, but some general points will be mentioned. First of all see that the switch is in starting position. Much time has been lost in thousands of cases by trying to start the engine with the switch off.

Next, look over all wire connections to see that they are tight and clean. If the engine starts on a battery of dry cells see that all connections between the cells are tight and that no short circuits are caused by the metallic portions of the cells touching with other, or by metal connection with the engine, or by tools lying on the cells, etc. The small knurled nuts on dry cells frequently loosen from vibration and thus interrupt the whole ignition system.

Testing Battery Strength.

It is a good thing to keep an ammeter handy for use in testing the strength of the cells of a battery. In testing with an ammeter it is best to discard all cells that do not test over 12 amperes. A new cell should test between 20 and 30 amperes. If no ammeter is available, a crude test can be made by striking the end of a wire connected to one end cell of the battery against the first connection on the cell at the other end.

Do not keep the wire in contact with the cell for more than an instant. Doing so will weaken the battery, but by snapping it quickly across the edge of the knurled nut a few times and noting the sparks, one can ascertain whether the battery is producing a good current. By making this test a few times with a battery which is in working condition, one can easily learn about how much of a spark should be expected.

Oil Causes Trouble.

Sometimes too much oil will cause trouble by accumulating on the contact points in the breaker box. It is usually easy to examine these points and see if they have oil on them; are rough or pitted, or not opening properly. If oily, rinse with a little gasoline and wipe dry. If rough or pitted, the points should be smoothed with a file made especially for this purpose. If such file is not available a small knife blade may be used to remove the tiny tips of metal which have formed on the points and to round off the beveled corners. It pays, however, to keep a suitable file on hand for this work, for pitted points are not uncommon, and unless properly smoothed up are liable to get into bad

shape again very quickly. A gauge is generally furnished by magneto manufacturers to determine the proper position. The means of adjusting this distance vary with different makes of magnetos, but are usually apparent upon examination. The points should separate about one-fiftieth of an inch. An ordinary pin is about one thirty-second of an inch in diameter, and a fairly close estimate may be made using this fact as a criterion, if no gauge is available.

Provide Waterproof Cover.

It is important that a waterproof cover be provided for the magneto, especially in the case of engines used out of doors, such as gas tractors. In order to protect the magneto from moisture and dust, as either of these is likely to cause trouble sooner or later.

During the past few years many stationary gas engines have been equipped with low-tension oscillating magnetos. Some of these are mounted directly on the igniter block, and it is easy to test the spark by removing the block and tripping the oscillator with the means provided. In other cases it is necessary to remove the end of the wire attached to the igniter block and wipe it across a metal part of the engine, at the same time tripping the oscillator. It is necessary that the end of the wire leave the metal almost instantly after the oscillator is tripped, otherwise the spark will not occur. A little practice will make this test comparatively easy.

PLAN TO SUCK FOG OUT OF OLD LONDON

Engineers Propose to Wash Air of Greatest City in the World.

No more fogs for London? That is the great possibility of the near future. The projected method of abatement is a novel one, and is planned to consist of a system of conduits and sucking pipes through the metropolis of the world. This is a first announcement of the proposal which is engaging the attention of the British national physical laboratory at Teddington, a London suburb.

Fog is smoke-saturated mist. When the mist is dense little of the smoke escapes. The proposed antifog system would suck in the imprisoned smoke, draw it through the conduits to baffles, or air washers, which would extract the dirt and dissipate the fumes.

In reality this is a system of smoke controlling, under low atmospheric conditions, such as is individually practiced in large buildings and factories in America. As London has hundreds of thousands of buildings, each with from five to fifty fireplaces—a chimney for each fireplace—it will be seen how difficult it would be to "muzzle" every chimney.

London is reluctant to abolish its traditional fireplace in favor of the more economical and efficient hot water or furnace heating systems, so that the millions of chimneys will continue to spew their dirty breath into the air for years to come. The sucking and air-washing system is the simplest, most trustworthy fog eliminator under these conditions, it is believed.

London without its fantastic fogs will be a disappointment to many. The great water colorist Turner was passionately fond of them. So is Yoshio Markino, the celebrated Japanese artist, who lives by the years in London with his canvas and paints ready for fogs.

However, most people will rejoice, including English, Scotch, Belgians, Dutch, Danes and Scandinavians. Ibsen in "Brand" mentions the curse of London fogs descending on Norway.

Why Business Fails.

Dr. Malcolm Keir of the University of Pennsylvania attributes the 15,000 to 20,000 business failures which occur annually to one or more of the following causes: Inexperience, unwise use of capital, employment of relatives, poor location and accounting, extension of credit and dishonesty.

HELLO!—WHASSAT?—YER CASH REGISTER AINT WORKIN'! WELL, WHADDA I CARE?—NOPE, THIS AINT THE REPAIR SHOP.—WHY DONTCHA TRY ADVERTISING? THAT MAKES 'EM WORK! Y'BETCHA O'BYE!



TWO YANKS HAVE NARROW ESCAPE

Four American Guns Await Order to Fire.

OFFICER SEES THE CHEVRON

If It Hadn't Been a Clear Day Knights of Columbus Secretary and Iowa Corporal Would Not Be Here Now to Tell the Tale—Yanks Thought They Were Huns and Had Guns Trained to Wipe Them Out.

If Sunday, October 13, 1918, had not been a clear, bright day John J. Mc Bennett, 72 West Sixty-ninth street, New York, just returned from France, where since last May he served as a Knights of Columbus secretary, would not be living today. He admits it and his contention is supported by Corporal Bill Hale of Iowa, circulation manager for Stars and Stripes, the official organ of the A. E. F. Hale, too, has cause to remember always that that particular day was bright and clear—at least in the Argonne section of the battlefields in France.

McBennett and Hale would certainly have been blown off the face of the earth if a keen-eyed American artillery officer had not, through a powerful field glass, happened to see the K. C. chevron on McBennett's sleeve. There wasn't an instant to spare, either, because four big American guns were trained on the men and the signal only was needed to blow them to smithereens.

How It Happened.

It happened like this: McBennett who had been delivering supplies to several of the Knights of Columbus buildings at the front, returned to division headquarters near Recourt Saturday night, October 12, with his automobile out of commission. He was wondering how he could manage to get these cigarettes and chocolates where they would do the most good when he happened to see Corporal Bill Hale coming along with a camionette, delivering a late edition of Stars and Stripes.

Hale agreed to help McBennett out. They made an early start and headed for Fleville, then started for St. Juvin, which McBennett understood was occupied by American troops, but later developments proved that 350 Germans were concealed in the town and outskirts.

Got Out to Adjust Curtains.

They kept going until they were within 75 yards of the city. They stopped their car and decided to get away from there at once. Hale got out of the car to adjust the curtains on one side and McBennett left his seat to arrange the shields on the other side. They finally turned around and they got back near Fleville.

On the way back to the lines McBennett and Hale met Father Martelle, chaplain of the Three Hundred and Seventh engineers and Three Hundred and Twenty-first field artillery. The priest told McBennett and Hale they certainly were the luckiest men in the world, because on the preceding day, when they had ridden into Fleville and started for St. Juvin, the American troops stationed in a mountain near there had seen them, but could not make out any name or insignia on their car, and when they saw them ride by these German machine-gun nests they naturally concluded that they were Germans and thus decided to mop them up. Four guns got their range on them immediately and would have received the signal to begin firing had it not been for the keen-eyed officer referred to. Through his glass he happened to see the K. C. chevron on McBennett's arm and the order to fire was never given.

BABY HAS LARGE FEET

Shoes of Men's Size Required for Infant Girl.

There is no doubt that little Virginia Scroggins of Rockwall, Tex., has the largest feet of any baby in the world. Virginia is two years old and is just beginning to walk about the house. Her parents and physician declare that the delay in her walking is due to the fact that she can hardly drag her feet about. Instead of wearing a tiny pink baby shoe, Virginia wears what would be a No. 10 of men's sizes if such "baby" shoes could be bought in the stores. Her feet are fully 10 inches in length and are 4 inches across the instep.

Mrs. Scroggins declares when Virginia was born her feet were almost as long as her body. Since that time they have grown in proportion to the other members of the body and it is figured that by the time she reaches the marriageable age her feet will be 24 inches long.

ARMY FOUND MANY UNFIT

467,694 Draftees Turned Down During Last Ten Months of War.

In the last ten months of the war, 467,694 men in the United States were found unfit for military service, according to the final report on the draft by Provost Marshal General Crowder. Defective heart and blood vessels were the causes of most of the rejections, 61,142 being barred in those cases. Defective bones and joints barred 57,744 men from the service in the final ten-month period, and 49,801 were rejected because of poor eyes.

OLD REGIME MEN STILL HOLD JOBS IN BERLIN

Members of Staff Presiding During War Continue in Office Under Ebert.

In Berlin one is surprised to find the large number of men of the old government who are still holding their positions under the socialist regime. The foreign office and practically all of the state departments have about the same staffs as held office during the war.

In many cases the head of the departments are changed, but the same group of undersecretaries work under a socialist head. Very often the entire department is dependent upon these undersecretaries. The majority socialists under Ebert saved many of these "technical men," as they are called, and it is due to them that German executive departments have continued to function in spite of revolution.

According to the former employees and representatives of the new government, the fact that men who served the militaristic party are now working with the socialists is not to be looked upon with suspicion by the allies, or to be taken as an indication that the government is any less socialist.

In Germany the departments of state are run upon a system whereby a man starts in one as a youngster and grows up with the department. His views will not keep him out of office. Many of the former kaiser's technical men protest they never have been in sympathy with the militaristic party and always have been liberals.

Though the radicals would throw these men out, because they are democrats rather than socialists, the majority socialists have taken a broader view in the interests of keeping government machinery functioning.

TWO GREAT LEADERS IN THE WORLD WAR



General Pershing wearing medal presented by the French government when he was made an officer of the Legion of Honor, and General Petain of the French army, who presented the medal.

DENIES STAFF SOUGHT PEACE

Hertling's Son Insists German High Command Did Not Weaken.

A son of the late Count George F. von Hertling, former imperial chancellor of Germany, has published a denial of the allegation that the German imperial government was twice requested by the supreme command of the army to conclude peace while his father was holding office. He avers that he is conversant with all that took place at that time between the supreme military command and the government, and says that it is untrue that, either in May or August, 1918, did the general staff ask, or even hint, that peace was desired, or intimate that it was willing to renounce any of Germany's war aims in any way.

The General Anzeiger of Frankfurt, which prints the denial, adds that young Hertling is preparing a book in which full records of his father's activities will be set forth.

LIGHT DECEIVES HENS

Wake Up and Lay Eggs and Then Go Back to Roost.

Automobilists passing through Alamo, Colo., at night have been puzzled by the sight of what appeared to be the Overland Limited standing in a field, with windows lighted. Inquiry developed that the "train" is a method devised by E. G. Dixon for lowering the egg prices.

Dixon has built a series of chicken coops modeled after Pullman coaches. In the ceilings are lights controlled by a time clock. The chickens think it is daytime, scramble down from their perches arranged like berths in a sleeper, and eat. When the light goes off they go back to roost. According to Dixon he has increased the laying average of the hens.